

C L A I M S

1. A process for forming a resist pattern, which increases the amount of reduction in thickness of a chemically amplified photoresist coating after development by 100 Å to 600 Å in comparison with the case of not applying the composition for preventing development-defects, comprising: a step of forming a chemically amplified photoresist coating on a substrate having a diameter of 8 inches or more by application; a step of applying a composition for preventing development-defects containing a surfactant on the chemically amplified photoresist coating; a step of baking after at least either the step of forming the chemically amplified photoresist coating by application or the step of applying the composition for preventing development-defects; a step of selectively exposing the chemically amplified photoresist coating; a step of post-exposure baking the chemically amplified photoresist coating; and a step of developing the chemically amplified photoresist coating,

wherein said surfactant is at least one member selected from the group consisting of (1) an ammonium salt, a tetraalkylammonium salt or a C₁ to C₄ alkanolamine salt of C₄ to C₁₅ perfluoroalkylcarboxylic acid, (2) an ammonium salt, a tetraalkylammonium salt or a C₁ to C₄ alkanolamine salt of C₄ to C₁₀ perfluoroalkylsulfonic acid, (3) a quaternary ammonium salt of perfluoroadipic acid, and (4) a fluorinated alkyl quaternary ammonium salt of inorganic acid which is at least one member selected from the group consisting of sulfuric acid, hydrochloric acid, nitric acid and hydroiodic acid, at the same time said surfactant being one that is formed at the equivalent

ratio of acid to base of 1:1 - 1:3.

2. A composition for preventing development-defects which contains a surfactant and is used for the process of forming a resist pattern that increases the amount of reduction in thickness of a chemically amplified photoresist coating after development by 100 Å to 600 Å in comparison with the case of not applying the composition for preventing development-defects, comprising: a step of forming a chemically amplified photoresist coating on a substrate having a diameter of 8 inches or more by application; a step of applying a composition for preventing development-defects containing a surfactant on the chemically amplified photoresist coating; a step of baking after at least either the step of forming the chemically amplified photoresist coating by application or the step of applying the composition for preventing development-defects; a step of selectively exposing the chemically amplified photoresist coating; a step of post-exposure baking the chemically amplified photoresist coating; and a step of developing the chemically amplified photoresist coating,

wherein said surfactant is at least one member selected from the group consisting of (1) an ammonium salt, a tetraalkylammonium salt or a C₁ to C₄ alkanolamine salt of C₄ to C₁₅ perfluoroalkylcarboxylic acid, (2) an ammonium salt, a tetraalkylammonium salt or a C₁ to C₄ alkanolamine salt of C₄ to C₁₀ perfluoroalkylsulfonic acid, (3) a quaternary ammonium salt of perfluoroadipic acid, and (4) a fluorinated alkyl quaternary ammonium salt of inorganic acid which is at least one member selected from the group consisting of sulfuric acid, hydrochloric acid, nitric acid and hydroiodic acid, at the same time said surfactant being one that is formed at the equivalent

ratio of acid to base of 1:1 - 1:3.